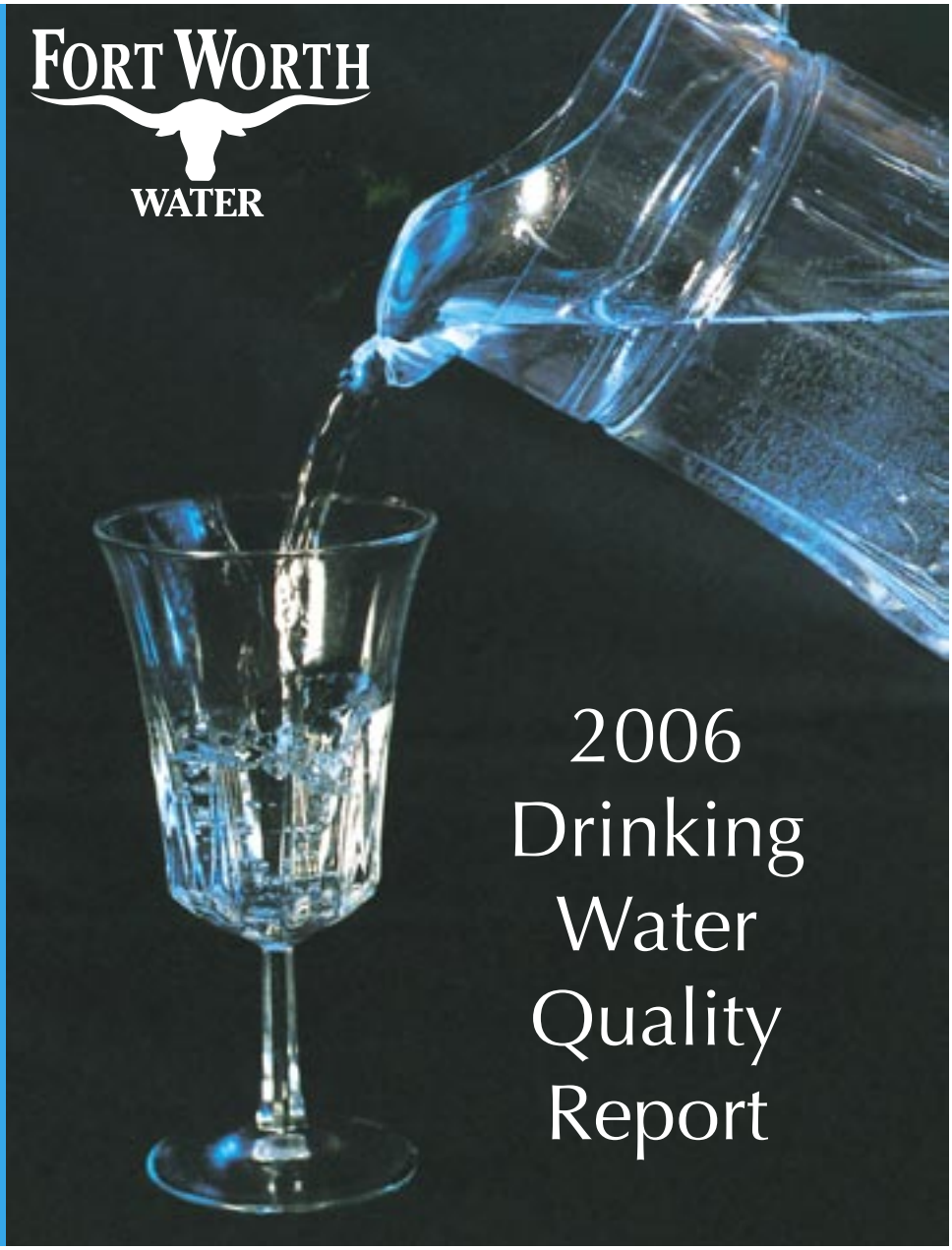
Enclosed is information about the quality of your drinking water.

This report may seem complex and confusing. thre are federal and state requirements on what information is provided and how it is presented.

The bottom line is our drinking water meets all the federal and state requirements for protecting public health.

FORT WORTH WATER



2006 Drinking Water Quality Report

Only Tap Water **Delivers**

...public health protection
...fire protection
...support for the economy
...the overall quality of life we enjoy

American Water Works Association

Fort Worth Water Department
Public Education Section
1000 Throckmorton St
Fort Worth Texas 76102

Health Information for Special Populations

You may be more vulnerable than the general population to certain microbial contaminants, such as *Cryptosporidium*, in drinking water. Infants, some elderly or immunocompromised persons, such as those undergoing chemotherapy for cancer, those who have undergone organ transplants, those who are undergoing treatment with steroids and people with HIV/AIDS or other immune system disorders can be particularly at risk from infections.

You should seek advice about drinking water from your physician or health care provider. Additional guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* are available from the Safe Drinking Water Hotline at 800-426-4791.

Cryptosporidium, Giardia & Virus Results Provided

Fort Worth's 2006 testing of lake water did not detect *Cryptosporidium, Giardia lamblia* or any viruses.

These are microscopic organisms common in surface water. Required levels of inactivation are achieved through disinfection and filtration.

The source is human and animal fecal waste. When ingested, *Cryptosporidium* and *Giardia lamblia* can cause diarrhea, cramps and fever.

No specific drug therapy has proven effective, but people with healthy immune systems usually recover within two weeks. Individuals with weak immune systems, however, may be unable to clear the parasite and suffer chronic and debilitating illness.

Fort Worth Water Department

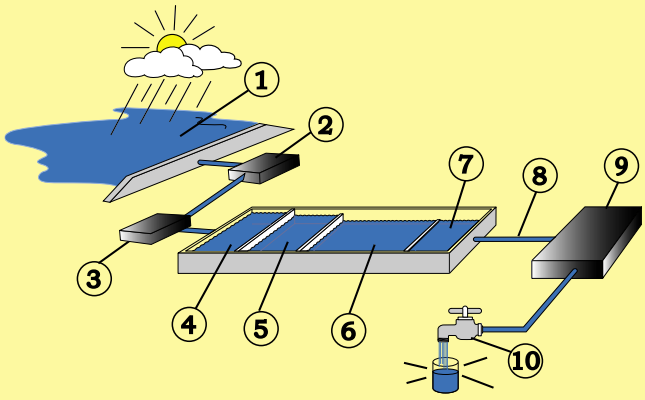
817-FW-24-HRS (817-392-4477)

Web site: www.fortworthgov.org/water
Email: WPE@fortworthgov.org

Administrative Office: Fort Worth City Hall, Second Floor, 1000 Throckmorton St., 817-392-8220
The Water Department is part of the Fort Worth city government. The City Council meets each Tuesday at City Hall, 1000 Throckmorton St.

1st & 2nd Tuesday of month	7 p.m.
All other Tuesdays	10 a.m.

The Treatment Process



1. Reservoirs: Fort Worth water comes from six lakes.
2. Raw Water Pump Station: Here water is pumped from the lake to the water treatment plant.
3. Primary Disinfection: Either ozone or chloramines (chlorine and ammonia) is added to kill bacteria and viruses. The Eagle Mountain and Rolling Hills water treatment plants use ozone. The North Holly and South Holly treatment plants use chloramines.
4. Mixing Chamber: Chemicals, called coagulants and polymers, are added to the water to cause small particles to adhere to each other.
5. Coagulation Basin: The particulate matter begins to clump together.
6. Sedimentation Basin: Particles settle to the bottom of the basin and are removed.
7. Filters: Water is filtered through four feet of coal, sand and gravel.
8. Disinfection: Chloramines are added to provide disinfection all the way to your faucet. The chlorine kills bacteria and viruses. Ammonia is added to reduce the chlorine odor and the amount of chlorine by-products created.
9. Clearwell Storage: Water is temporarily stored in tanks before it is pumped to the public.
10. Distribution: Drinking water reaches the public through more than 2,800 miles of pipeline.

Learn more about water by visiting the following Web sites. Many of these sites offer resources for teachers and children.

Fort Worth Water
www.fortworthgov.org/water

Environmental Protection Agency
www.epa.gov

Texas Commission on Environmental Quality
www.tceq.state.tx.us

Texas Water Development Board
www.twdb.state.tx.us

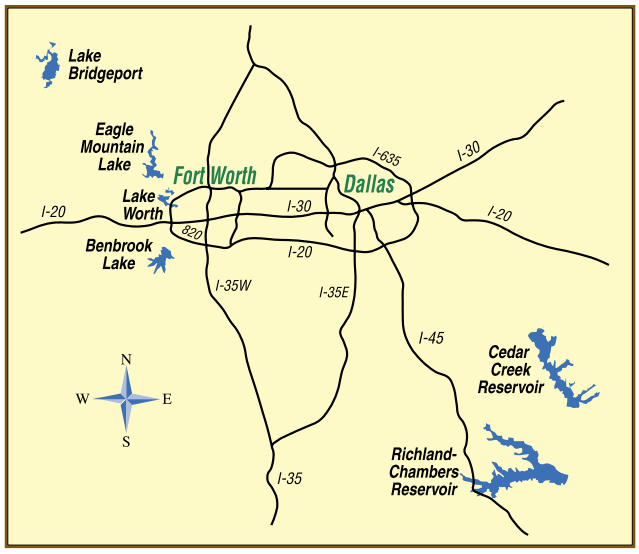
American Water Works Association
www.awwa.org
www.drinktap.org

Water Environment Federation
www.wef.org

National Sanitation Foundation
www.nsf.org

Texas Water Conservation Association
www.twca.org

TCEQ Assessed Source Waters



The Texas Commission on Environmental Quality (TCEQ) conducted a source water assessment of our water supply lakes in 2003. The Fort Worth water system is susceptible to some contaminants, using criteria developed by TCEQ in its federally approved source water assessment program.

The assessment report consists of maps showing the assessment area, an inventory of known land use activities of concern and documentation of specific contaminants of concern. This report is available for review at the Fort Worth Water Department office, 1000 Throckmorton St., 2nd floor.

Fort Worth uses surface water from six lakes — Lake Bridgeport, Eagle Mountain Lake, Lake Worth, Benbrook Lake, Cedar Creek Lake and Richland-Chambers Reservoir.

Fort Worth owns Lake Worth. The U.S. Army Corps of Engineers is responsible for Benbrook Lake. The other four lakes are owned and operated by Tarrant Regional Water District (TRWD).

Fort Worth monitors water quality in Lake Worth and participates with TRWD to ensure the other lakes are regularly tested.

TCEQ is currently updating the assessments.

Substances Expected To Be in Drinking Water

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline at 800-426-4791 or visiting the EPA Web site at www.epa.gov/safewater.

As water travels over the land or through the ground, it dissolves naturally occurring minerals and radioactive material. Water can also pick up substances resulting from animal waste or human activity.

These contaminants could be bacteria, viruses, salts, metals or pesticides.

To ensure tap water is safe to drink, EPA and the Texas Commission on Environmental Quality (TCEQ) have regulations limiting the amount of certain contaminants in water provided by public systems.

The Food and Drug Administration (FDA) regulates limits for contaminants in bottled water. These limits must provide the same public health protection as tap water standards.

Contaminants may be found in drinking water that may cause taste, color or odor problems. These types of problems are not necessarily causes for health concerns. For more information on the taste, odor or color of drinking water, call the Water Department at 817-392-4477.

What's in the Water

Contaminant	Measure	MCL	2006 Level	Range of Detects	MCLG	Common Sources of Substance in Drinking Water
Barium[1]	ppm	2	0.058	0.033 to 0.058	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Beta particles & Photon emitters [2]	pCi/L	50	6.6	4.6 to 6.6	N/A	Decay of natural and man-made deposits of certain minerals that are radioactive and may emit forms of radiation known as photons and beta radiation
Fluoride	ppm	4	1.1	0.3 to 1.1	4	Water additive that promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
Nitrate (measured as Nitrogen)	ppm	10	0.46	0.12 to 0.46	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (measured as Nitrogen)	ppm	1	0.035	0 to 0.035	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Bromate	ppb	10	4.6	0 to 4.6	0	By-product of drinking water disinfection
Haloacetic Acids	ppb	60	16.6	7 to 16.6	N/A	By-product of drinking water disinfection
Total Trihalomethanes	ppb	80	38.1	13.1 to 38.1	N/A	By-product of drinking water disinfection
Total Coliforms (including fecal coliform & E. coli)	% of positive samples	Presence in 5% of monthly samples	Presence in 0.80% of monthly samples	0 to 0.8	0	Coliforms are naturally present in the environment as well as feces; fecal coliforms and E. coli only come from human and animal fecal waste.
Turbidity [3]	NTU	TT	0.42 Highest single result	N/A	N/A	Soil runoff
			98.9% Lowest monthly % of samples ≤ 0.3 NTU			

Contaminant	Measure	MRDL	2006 Level	Range of Detects	MRDLG	Common Sources of Substance in Drinking Water
Chloramines	ppm	4	3.4	1.5 to 4.5	4	Water additive used to control microbes

Contaminant	Measure	90th percentile [5]	# of sites exceeding action level	MCL	MCLG	Common Sources of Substance in Drinking Water
Lead [4]	ppb	2.4	0	Action Level =15	N/A	Corrosion of household plumbing systems; erosion of natural deposits
Copper [4]	ppm	0.457	0	Action Level =1.3	N/A	

Contaminant	High	Low	Average	MCL	MCLG	Common Sources of Substance in Drinking Water
Total Organic Carbon [6]	1	1	1	TT = % removal	N/A	Naturally occurring

[1] Because Fort Worth historically has had low levels of metals in its water, the Texas Commission on Environmental Quality (TCEQ) requires this monitoring occur only once every six years. The test results shown above are from 2002. The next monitoring will occur in 2008.

[2] Because Fort Worth historically has had low levels of radionuclides in its water, TCEQ requires this monitoring occur only once every three years. The test results shown above are from 2005. The next monitoring will occur in 2008.

[3] Turbidity is a measure of the cloudiness of water. It is monitored because it is a good indicator of the effectiveness of the filtration system.

[4] Because Fort Worth historically has had low levels of lead and copper in its water, the TCEQ requires this monitoring occur only once every three years. The test results shown above are from 2005. The next monitoring will occur in 2008.

[5] 90th percentile value: 90% of the samples were at or below this value. EPA considers the 90th percentile value the same as an "average" value for other contaminants. Lead and copper are regulated by a Treatment Technique that requires systems to control the corrosiveness of the water. If more than 10% of tap water samples exceed the action level, water systems must take additional steps.

[6] Total Organic Carbon is used to determine disinfection by-product precursors. Fort Worth was in compliance with all monitoring and treatment technique requirements for disinfection by-product precursors.

Unregulated Contaminants [7]						
Contaminant	Unit	Range of Detections	2006 Level	MCL	MCLG	Common Sources of Substance in Drinking Water
Chloral Hydrate	ppb	0 to 2.1	2.1	Not regulated	0	By-product of drinking water disinfection
Bromoform	ppb	0 to 2	2	Not regulated	0	By-product of drinking water disinfection; not regulated individually; included in Total Trihalomethanes
Bromodichloromethane	ppb	0 to 19.1	19.1	Not regulated	0	
Chloroform	ppb	0 to 22.1	22.1	Not regulated	0	
Dibromochloromethane	ppb	0 to 14	14	Not regulated	60	
Dichloroacetic Acid	ppb	0 to 17.6	17.6	Not regulated	0	By-product of drinking water disinfection; not regulated individually; included in Haloacetic Acids
Trichloroacetic Acid	ppb	0 to 6.1	6.1	Not regulated	300	

[7] Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

Abbreviations Used in Tables

Action Level - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

MCL - Maximum Contaminant Level; the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG - Maximum Contaminant Level Goal; the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MRDL - Maximum Residual Disinfectant Level; the highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG - Maximum Residual Disinfectant Level Goal; the level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

N/A - Not Applicable.

NTU - Nepholometric Turbidity Unit; a measure of water turbidity or clarity.

pCi/L - Picocuries per liter; a measure of radioactivity.

ppb - Parts per billion or micrograms per liter (µg/L).

ppm - Parts per million or milligrams per liter (mg/L).

TT - Treatment Technique; a required process intended to reduce the level of a contaminant in drinking water.

Additional Parameters		
This chart lists other items for which the water is tested. These items do not relate to public health but rather to aesthetic effects. These items are often important to industrial users.		
Item	Measure	2006 Level
Bicarbonate	ppm	107 to 163
Calcium	ppm	77 to 153
Chloride	ppm	22 to 44
Conductivity	µmhos/m	343 to 511
pH	units	7.8 to 8.2
Magnesium	ppm	3 to 10
Sodium	ppm	15 to 34
Sulfate	ppm	33 to 42
Total Alkalinity as $CaCO_3$	ppm	88 to 130
Total Dissolved Solids	ppm	185 to 272
Total Hardness as $CaCO_3$	ppm	92 to 181
Total Hardness in Grains	grains/gallon	5 to 11

Public Meeting
Monday, July 9, 2007
City Hall,
Council Chambers
1000 Throckmorton St.
6 p.m.

Water Department staff will be on hand to answer questions you may have about this report or other water quality issues.

Need a Speaker for your neighborhood or civic club?

You can request one online at www.fortworthgov.org/water or by calling 817-FW-24-HRS (817-392-4477)

Drinking Water Quality

Water Conservation

Pesticides

Biosolids

Grease

Wastewater Treatment

Youth Programs

& More

Mark Your Calendars!

FREE Yard Smart Seminar

August 25, 2007

Fort Worth Botanic Gardens Lecture Hall

8:30 a.m.

Watch for bill insert or visit www.fortworthgov.org/water for more information.